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# **COSTS and RETURNS**



**Commercial  
Corn Belt  
Farms**

**1963**

## FARM COSTS STUDIES

This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches by type and size in some of the important farming regions of the United States. The study is conducted under the general supervision of Wylie D. Goodsell, Farm Production Economics Division, Economic Research Service. Objectives, methodology, procedure, and terms are uniform for all areas covered in the study.

The 1963 costs and returns studies have been conducted on the following:

- Dairy Farms, Northeast and Midwest
- Corn Belt Farms
- Egg-Producing Farms, New Jersey
- Broiler Farms, Maine, Delmarva, and Georgia
- Cotton Farms
- Tobacco Farms, Coastal Plain, North Carolina
- Tobacco-Livestock Farms, Bluegrass Area, Kentucky
- Wheat Farms, Plains and Pacific Northwest
- Western Livestock Ranches

Summary statistics for all types of farms in the study are presented in a report, revised annually. The latest such report was published in 1963 and is titled: "Farm Costs and Returns, Commercial Farms, by Type, Size, and Location," Agriculture Information Bulletin No. 230, Revised, 1963.

Information on the studies can be obtained from Farm Production Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C., 20250.

## LOCATION OF TYPES OF FARMS STUDIED

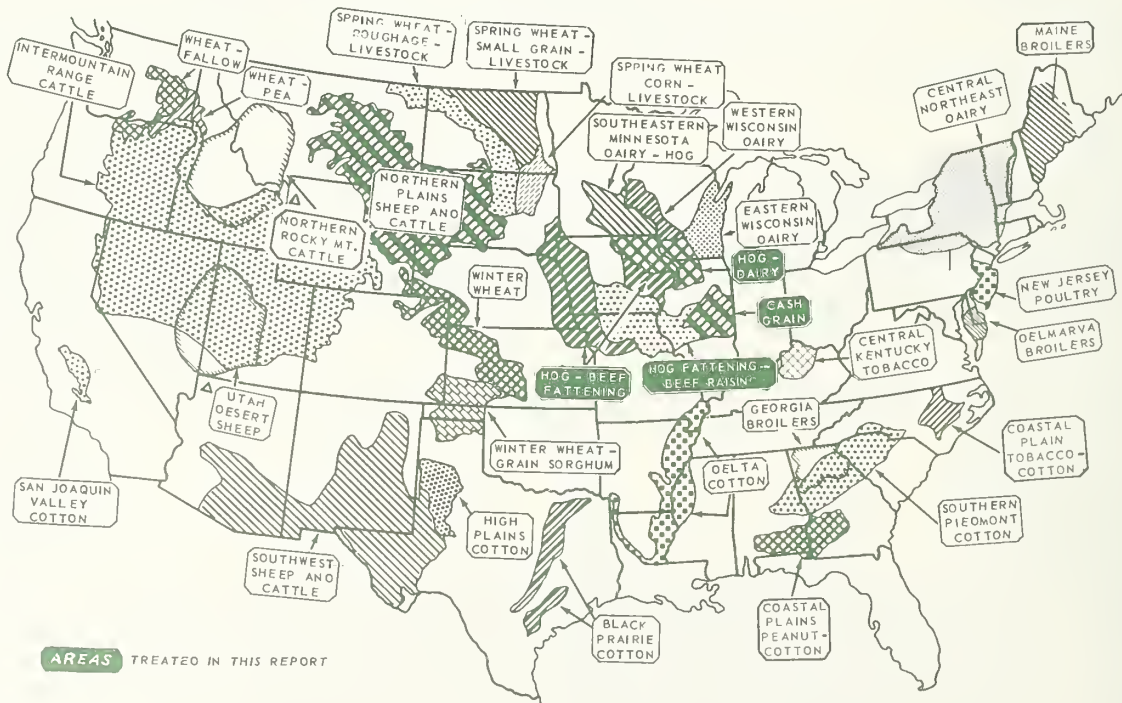


Figure 1

# COSTS AND RETURNS

## COMMERCIAL CORN BELT FARMS, 1963

by Paul E. Rosenberry, Agricultural Economist  
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Net returns in 1963 were lower than in 1962 for typical hog-dairy and hog-beef fattening farms, and higher for hog fattening--beef raising and cash grain farms (fig. 1, table 1). Net farm incomes on these commercial Corn Belt farms in 1962 and 1963 were:

| <u>Farm Types</u> <sup>1</sup>    | <u>1962</u> | <u>1963</u> |
|-----------------------------------|-------------|-------------|
| Hog-dairy.....                    | \$5,551     | \$5,071     |
| Hog fattening--beef raising ..... | 3,838       | 4,130       |
| Hog-beef fattening .....          | 10,522      | 3,674       |
| Cash grain.....                   | 10,065      | 14,311      |

<sup>1</sup>The data presented here are based on first, a specific area as shown in figure 1; second, specific farm types; and third, typical or modal farms within each farm type. The distribution pattern of farms within each farm type also permits the data to be an accurate measure of the average of all farm sizes. For specific farm sizes falling significantly above or below the typical size reported, it is necessary to adjust the data accordingly.

Major factors affecting costs and returns on Corn Belt farms between 1962 and 1963 were lower prices received for livestock, higher prices paid for production items, and increased yields on most farms except the hog-beef fattening farms.

### Hog-Dairy Farms

Net farm income on hog-dairy farms in 1963 averaged about 10 percent below a year earlier (table 1). Operating expenses increased considerably while gross farm income was unchanged from 1962 levels. Higher prices paid combined with larger quantities of inputs purchased accounted for the increased expenditures. The greatest increase in expenditures was for feed, power, machinery, and taxes.

Crop and livestock production increased almost 11 percent above

1962 levels on hog-dairy farms. However, prices received for these products averaged about 8 percent below 1962 levels. The hog enterprise was affected most as prices received fell from \$16.26 per hundredweight in 1962 to \$13.37 in 1963. The dairy enterprise fared more favorably than hogs as milk production climbed to a record 155,000 pounds per farm and milk prices remained about even with 1962.

If a charge of 4.1 percent is used for capital invested in the farm and this amount is subtracted from net



Table 1.- Organization, costs, and returns, specified Corn Belt farms, 1962 and 1963

| Item                                                 | Unit   | Hog-dairy |         | Hog fattening--<br>beef raising |         | Hog-beef<br>fattening |         | Cash grain |         |
|------------------------------------------------------|--------|-----------|---------|---------------------------------|---------|-----------------------|---------|------------|---------|
|                                                      |        | 1962      | 1963 1/ | 1962                            | 1963 1/ | 1962                  | 1963 1/ | 1962       | 1963 1/ |
| Land in farm.....                                    | Acre   | 184       | 186     | 267                             | 280     | 227                   | 231     | 261        | 289     |
| Cropland harvested.....                              | do.    | 108       | 113     | 119                             | 139     | 147                   | 153     | 198        | 246     |
| Crop yields per acre:                                |        |           |         |                                 |         |                       |         |            |         |
| Corn for grain.....                                  | Bushel | 78.1      | 80.6    | 61.0                            | 63.0    | 78.0                  | 76.4    | 90.0       | 92.0    |
| Oats.....                                            | do.    | 51.8      | 53.6    | 38.0                            | 45.4    | 47.9                  | 48.2    | 58.8       | 63.0    |
| Soybeans.....                                        | do.    | 2/        | 2/      | 25.5                            | 27.4    | 2/                    | 2/      | 30.2       | 31.2    |
| Hay.....                                             | Ton    | 2.6       | 2.5     | 1.9                             | 1.9     | 2.5                   | 2.4     | 2.1        | 2.1     |
| Pigs raised.....                                     | Number | 144       | 149     | 125                             | 133     | 196                   | 209     | 39         | 35      |
| Cattle sold.....                                     | Cwt.   | 2/        | 2/      | 2/                              | 2/      | 822                   | 885     | 2/         | 2/      |
| Milk production per cow.....                         | Pound  | 7,550     | 7,910   | 2/                              | 2/      | 2/                    | 2/      | 2/         | 2/      |
| Total farm capital, Jan. 1.....                      | Dollar | 59,520    | 62,170  | 54,500                          | 58,920  | 94,570                | 98,920  | 118,220    | 137,020 |
| Land and buildings.....                              | do.    | 39,930    | 41,290  | 37,110                          | 41,160  | 64,240                | 66,070  | 105,970    | 124,560 |
| Machinery and equipment.....                         | do.    | 7,470     | 7,710   | 6,180                           | 6,400   | 8,000                 | 8,380   | 7,620      | 8,000   |
| Livestock.....                                       | do.    | 7,390     | 7,820   | 7,410                           | 7,600   | 15,230                | 16,270  | 2,870      | 2,540   |
| Crops.....                                           | do.    | 4,730     | 5,350   | 3,800                           | 3,760   | 7,100                 | 8,200   | 1,760      | 1,920   |
| Total labor used.....                                | Hour   | 4,520     | 4,730   | 3,660                           | 3,860   | 4,400                 | 4,580   | 3,140      | 3,340   |
| Hired.....                                           | do.    | 450       | 470     | 250                             | 260     | 570                   | 600     | 310        | 330     |
| Total cash receipts.....                             | Dollar | 12,472    | 12,414  | 9,386                           | 9,422   | 32,071                | 29,031  | 18,344     | 24,076  |
| Crops.....                                           | do.    | 653       | 929     | 1,421                           | 1,858   | 0                     | 0       | 13,741     | 19,872  |
| Hogs.....                                            | do.    | 5,047     | 4,424   | 4,434                           | 4,575   | 7,154                 | 7,131   | 1,432      | 1,324   |
| Cattle.....                                          | do.    | 1,423     | 1,373   | 2,596                           | 2,040   | 23,383                | 20,386  | 1,578      | 1,355   |
| Other livestock and livestock products..             | do.    | 4,887     | 5,279   | 393                             | 353     | 707                   | 614     | 388        | 273     |
| Other, including Government payments....             | do.    | 462       | 409     | 542                             | 596     | 827                   | 900     | 1,205      | 1,252   |
| Value of perquisites.....                            | do.    | 906       | 914     | 685                             | 726     | 1,074                 | 1,092   | 1,017      | 1,086   |
| Change in inventory of crops and live-<br>stock..... | do.    | 560       | 690     | 70                              | 1,154   | 648                   | 901     | -442       | -581    |
| Gross farm income.....                               | do.    | 13,938    | 14,018  | 10,141                          | 11,302  | 33,793                | 31,024  | 18,919     | 24,581  |

| Item                                                  | Unit   | Hog-dairy |         | Hog fattening--<br>beef raising |          | Hog-beef<br>fattening |           | Cash grain |          |
|-------------------------------------------------------|--------|-----------|---------|---------------------------------|----------|-----------------------|-----------|------------|----------|
|                                                       |        | 1962      | 1963 1/ | 1962                            | 1963 1/  | 1962                  | 1963 1/   | 1962       | 1963 1/  |
| Total cash expenditures.....                          | Dollar | 8,487     | 9,157   | 6,682                           | 7,551    | 23,555                | 27,680    | 9,019      | 10,840   |
| Feed purchased.....                                   | do.    | 1,551     | 1,691   | 1,131                           | 1,262    | 5,327                 | 7,086     | 547        | 475      |
| Livestock expense.....                                | do.    | 426       | 447     | 244                             | 277      | 3/ 11,218             | 3/ 12,921 | 115        | 113      |
| Fertilizer and lime.....                              | do.    | 422       | 453     | 549                             | 638      | 483                   | 542       | 1,104      | 1,571    |
| Other crop expense.....                               | do.    | 495       | 559     | 392                             | 466      | 566                   | 627       | 654        | 854      |
| Machinery.....                                        | do.    | 3,182     | 3,461   | 2,315                           | 2,687    | 3,175                 | 3,443     | 3,604      | 4,642    |
| Farm buildings and fences.....                        | do.    | 829       | 886     | 760                             | 825      | 925                   | 940       | 705        | 740      |
| Labor hired.....                                      | do.    | 512       | 549     | 256                             | 275      | 658                   | 702       | 336        | 367      |
| Taxes.....                                            | do.    | 802       | 839     | 851                             | 915      | 945                   | 1,144     | 1,752      | 1,857    |
| Other.....                                            | do.    | 268       | 272     | 184                             | 206      | 258                   | 275       | 202        | 221      |
| Inventory adjustment, machinery and<br>buildings..... | do.    | -100      | -210    | -379                            | -379     | -284                  | -330      | -165       | -570     |
| Total operating expenses.....                         | do.    | 8,387     | 8,947   | 6,303                           | 7,172    | 23,271                | 27,350    | 8,854      | 10,270   |
| Net farm income.....                                  | do.    | 5,551     | 5,071   | 3,838                           | 4,130    | 10,522                | 3,674     | 10,065     | 14,311   |
| Charge for capital at 4.1 percent interest..          | do.    | 2,440     | 2,549   | 4/ 2,371                        | 4/ 2,572 | 4/ 4,192              | 4/ 4,443  | 4/ 5,014   | 4/ 5,823 |
| Return to operator and family labor.....              | do.    | 3,111     | 2,522   | 1,467                           | 1,558    | 6,330                 | -769      | 5,051      | 8,488    |
| Index numbers (1957-59=100):                          |        |           |         |                                 |          |                       |           |            |          |
| Net farm production.....                              | ---    | 103       | 114     | 107                             | 130      | 111                   | 113       | 120        | 162      |
| Crop yields per acre.....                             | ---    | 103       | 105     | 102                             | 106      | 111                   | 110       | 119        | 123      |
| Total cost per unit of production.....                | ---    | 115       | 111     | 113                             | 106      | 108                   | 116       | 96         | 82       |
| Prices received for products sold.....                | ---    | 102       | 94      | 104                             | 98       | 108                   | 92        | 105        | 105      |
| Prices paid, including wages to<br>hired labor.....   | ---    | 107       | 108     | 107                             | 109      | 96                    | 99        | 100        | 100      |

1/ Preliminary. 2/ Not applicable. 3/ Includes purchased feeder cattle. 4/ Invested capital at 4.1 percent and production credit at current short-term interest rates charged by production credit associations on loans outstanding.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

farm income, a return to operator and family labor of 59 cents per hour is estimated for 1963. In 1962, the amount was 76 cents.

### Hog Fattening--Beef Raising Farms

Net farm income on hog fattening--beef raising farms averaged \$4,130 per farm in 1963, an increase of \$292 over 1962. Gross farm income was up about \$1,160 from a year earlier and total expenditures increased about \$870. Expenditures for feed, power, machinery, and crop inputs increased the most. Operators paid record-high prices in 1963 for greater quantities of production inputs.

Prices received in 1963 were 6 percent lower than a year earlier as cattle and hog prices decreased \$2.10 and \$1.35 per hundredweight, respectively. Soybean prices were the exception and averaged almost 30 cents higher per bushel than in 1962.

Larger 1963 incomes on this farm type were primarily due to increased production. Hog production was up about 12 percent, and total crop production was up almost 30 percent. Crop yields in 1963 were considerably higher than a year earlier; growing conditions improved compared with the drought conditions that prevailed in the southern portion of the Corn Belt in 1962.

Assuming a charge of 4.1 percent for the use of capital on hog fattening--beef raising farms, the wage rate for operator and family labor would be 43 cents per hour. This is about the same as in 1962.

### Hog-Beef Fattening Farms

Net farm income in 1963 on hog-beef fattening farms averaged \$3,674

per farm, down considerably from \$10,522 in 1962. This decrease resulted from an 8-percent drop in gross farm income and an 18-percent increase in operating expenses. Main factor causing the changes in income and expenses between the 2 years was the price spread between feeder cattle and fat cattle (fig. 2). Prices paid for feeder cattle by these farm operators increased from \$26.45 per hundredweight for the 1962 feeding season to \$29.10 for the 1963 feeding season. On the other hand, prices received for fat cattle decreased from \$28.45 in 1962 to \$23.05 per hundredweight in 1963. This represents a gain in 1962 of \$2.00 per hundredweight between purchase price and sale price compared with a loss of \$6.05 in 1963. In addition to the increased costs of feeder cattle, a combination of higher prices paid for a larger quantity of production inputs contributed to the \$4,000 increase in operating expenses. Items showing the largest increases from 1962 were feeder cattle, feed, machinery and power, and taxes. Gross income also was lowered by the decline in hog prices from \$16.20 per hundredweight in 1962 to \$14.95 in 1963.

Production per farm increased almost 2 percent on these hog-beef fattening farms. The quantity of hogs and cattle sold increased about 8 percent per farm between 1962 and 1963. Crop production increased almost 5 percent because of the increased acreage of feed grains per farm, but crop yields were slightly lower in 1963.

Returns on this farm type did not cover a 4.1-percent charge for capital. A deficit of \$769 occurred which allowed no return to operator and family labor.



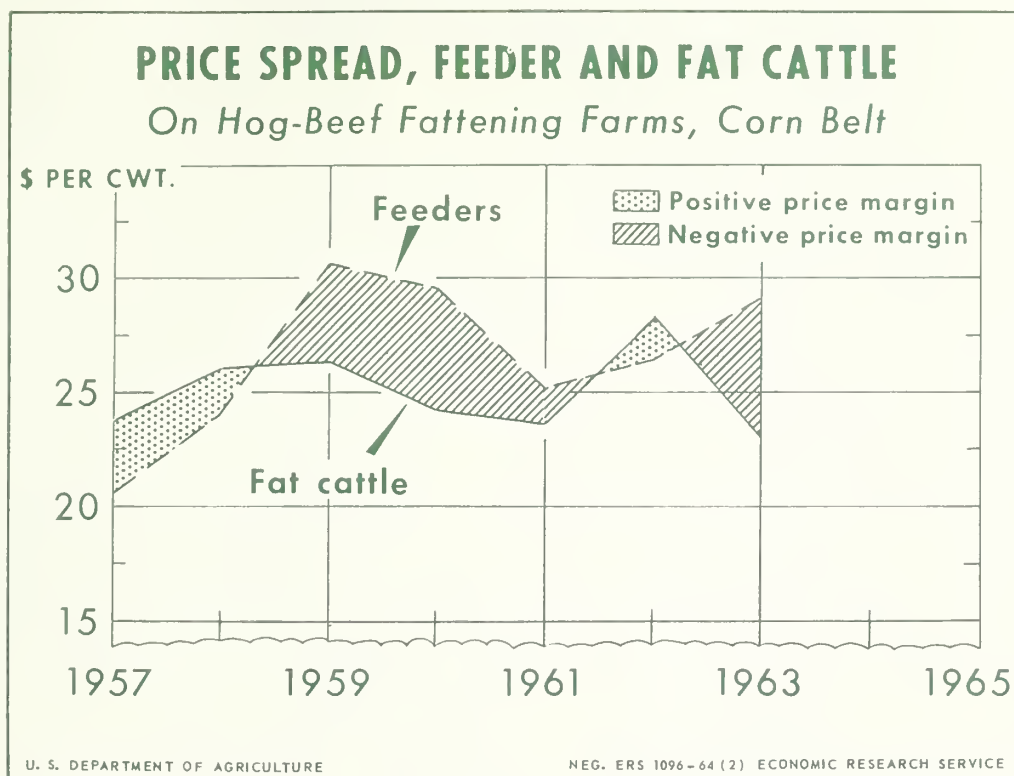


Figure 2

## Cash Grain Farms

In 1963 net farm income on cash grain farms averaged \$14,311 per farm, an increase of \$4,246 from 1962. Grain sales increased substantially in 1963 as crop yields averaged more than 3 percent above year-earlier levels. The trend to larger acreages and less livestock was very much in evidence on cash grain farms during 1963. Acreages of corn and soybeans increased while acreages of pasture, small grains, and hay decreased. Prices received for corn and oats in 1963 remained close to 1962 levels. However, prices received for soybeans increased from \$2.38 per bushel in 1962 to \$2.65 in 1963. Hog and cattle prices averaged \$1.50 and

\$2.35 per hundredweight lower, respectively. Participation in the Feed Grain Program remained high with most operators diverting the required number of acres.

Total operating expenses per farm increased from \$8,854 in 1962 to \$10,270 per farm in 1963. The increased quantities of production inputs needed for the larger production were important in increasing total operating expenses above 1962.

When a charge of 4.1 percent for capital invested is deducted from net farm income a return in 1963 of \$8,488 is available for operator and family labor. This amounts to about \$2.82 per hour, topping the 1947 record high of \$2.61 per hour.

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